| DEFEDRA | TIONAL | SEARCH | DEPORT |
|---------|--------|--------|--------|

International application No.

PCT/JP2004/011764

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl⁷ G02B7/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ G02B7/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1940–1996 Toroku Jitsuyo Shinan Koho 1994–2004

Kokai Jitsuyo Shinan Koho 1971–2004 Jitsuyo Shinan Toroku Koho 1996–2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Further documents are listed in the continuation of Box C.

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | |
|-----------|---|-----------------------|--|
| Х | JP 2002-130114 A (Toshiba Corp.), | 1,2 | |
| Y | 09 May, 2002 (09.05.02), Full text; Figs. 1 to 17 (Family: none) | 3-7 | |
| Y | JP 2002-228816 A (Olympus Optical Co., Ltd.), 14 August, 2002 (14.08.02), Par. No. [0050] (Family: none) | 2,5,6 | |
| Y | JP 8-68933 A (Nikon Corp.), 12 March, 1996 (12.03.96), Full text; Figs. 1 to 10 & US 5614983 A | 2,3 | |
| | | | |

| • "A" | Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance | "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention | | |
|--|---|---|---|--|--|
| "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone | | |
| | | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is | | |
| "O" "P" | | | combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family | | |
| | are priority data distinct | | | | |
| Date of the actual completion of the international search 15 November, 2004 (15.11.04) | | Date of mailing of the international search report 07 December, 2004 (07.12.04) | | | |
| Nam | e and mailing address of the ISA/ | Authorized officer | | | |

See patent family annex.

INTERNATIONAL SEARCH REPORT

International application No.

| | PCT/JP2004/011764 |
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| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| Y | JP 2003-195148 A (Fuji Photo Optical Co., Ltd.), 09 July, 2003 (09.07.03), Full text; Figs. 1 to 4 (Family: none) | 4 |
| Y | JP 2003-66312 A (Canon Inc.), 05 March, 2003 (05.03.03), Par. Nos. [0013] to [0016] (Family: none) | 7 |
| | | |
| | | |

INTERNATIONAL SEARCH REPORT

International application No. PCT/JP2004/011764

| Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet) |
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| This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: 1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: |
| 2. Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: |
| 3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). |
| Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet) |
| This International Searching Authority found multiple inventions in this international application, as follows: |
| The matter common to claims 1-7 is the actuator operation control described in claim 1, which control corresponds to use environmental conditions of the actuator. However, the operation control is not novel, and therefore, there is no special technical feature common to claims 1-7. Further, the "special technical feature" of claims 2-6 are actuator operation control corresponding to "different" use environmental conditions that are temperature, attitude, movement direction, moisture, and distance, respectively. Claim 7 relate to the invention having two actuators, one with high accuracy and the other with a wide operation range. (continued to extra sheet) 1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims. |
| 2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. |
| 3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: |
| Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees. |

International application No.

PCT/JP2004/011764

Continuation of Box No.III of continuation of first sheet(2)

There is no technical relationship between these inventions involving one or more of the same or corresponding special technical features, and therefore, the inventions are not so linked as to form a single inventive concept.

As a consequence, claims 1-7 do not satisfy the requirement of unity of invention.